



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

FEB 25 2016

OFFICE OF  
AIR AND RADIATION

**MEMORANDUM**

**SUBJECT:** Art Glass Manufacturing - Request for Regional Input

**FROM:** Janet G. McCabe *JGMcC*  
Acting Assistant Administrator

**TO:** Regional Air Division Directors  
Regions 1-10

I am writing to make you aware of an air toxics situation that has been taking place in Region 10 and ask your assistance as we work to understand the national implications of this situation. In this memo, I am summarizing the situational background and the ways in which EPA is supporting Oregon to respond. I hope you were able to attend yesterday's special purpose call and have a better understanding of the situation on the ground in Portland. My specific asks of you moving forward are to, by March 9, 2016:

1. Provide any information you currently have about the sources we've identified (attached), and if you are aware of any additional art (or colored) glass manufacturing facilities not on this list.
2. Communicate with your states to:
  - a. ensure they are aware of the issues associated with these sources in Oregon;
  - b. offer your assistance in determining whether there are similar emissions of concern associated with these sources; and
  - c. request your states provide any information they have about these sources.
3. Let me know if your Region has special expertise in this type of facility or control of these types of pollutants.

**Background**

The U.S. Forest Service (USFS), in a pilot study, found moss collected from trees around art glass manufacturers in the Portland area—and Bullseye Glass in particular—had much higher concentrations of heavy metals than other areas in the city. This result prompted the Oregon Department of Environmental Quality (ODEQ) to set up air monitoring systems near the company to collect 24-hour air samples every few days over a 30-day period in October 2015.

In early February, ODEQ made publicly available the results of that air monitoring, which showed high levels of cadmium and arsenic in the air and began investigating potential sources. Preliminary work suggests that the metals found in the monitoring were coming in large part from Bullseye Glass, an art glass manufacturing facility. Elevated cadmium levels were also found in proximity to another Portland glass manufacturer, Uroboros Glass. Both companies have suspended the use of chromium and

cadmium; Bullseye, which also used arsenic, has suspended its use. ODEQ has provided a summary at <http://www.deq.state.or.us/nwr/docs/metalsem/FSDEQAdressingAirToxics.pdf>, and they are providing regular updates and technical information on the Portland Metals website at <http://www.deq.state.or.us/nwr/metalsemissions.htm>.

OAQPS has identified 14 other similar facilities, which, like Bullseye and Uroboros, may manufacture art glass and may use raw metals in their processes. A Clean Air Act National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR Part 63, Subpart SSSSSS) for glass manufacturing area sources has been in effect since 2007. This rule applies to continuous furnaces that produce 50 tons or more of glass per year using any amount of toxic metals in the glass recipe. As noted below, one area of investigation is the applicability of Part 63, Subpart SSSSSS to these and similar facilities.

### **EPA Assistance**

The EPA has been fully engaged to support Oregon and others as this situation has developed, including supporting efforts to identify all art glass producers that might have similar issues and all other sources of metals emissions in Oregon.

#### **In Region 10:**

- Staff and management are working closely with state partners to provide significant assistance to ODEQ and the Oregon Health Authority (OHA). Oregon has set up an incident command structure for managing this issue, and the Region 10 Operations Office in Portland is part of the team, helping to coordinate EPA's assistance as a part of the state's ongoing work.
- EPA Region 10's focus has been on supporting Oregon to work directly with impacted facilities and to provide assistance in the development of air and soil sampling programs. Two weeks ago, EPA Region 10 enforcement staff, including an expert on glass manufacturing facilities, conducted a joint inspection with ODEQ of the Bullseye Glass Company and an EPA inspection of Uroboros Glass. The EPA subsequently inspected Spectrum Glass in Washington State and conducted a joint inspection with ODEQ of Northstar Glassworks in Portland. The EPA's engineers and technical specialists from across the country<sup>1</sup> have participated in subsequent technical meetings with ODEQ and Bullseye Glass to provide guidance on analytical methods to characterize the sources and information on technologies available to control emissions from glass manufacturing facilities. We have supported Oregon in their actions to secure agreements from the companies to stop using the compounds that are associated with the toxic emissions found in the air monitoring until other solutions can be developed. ODEQ and OHA have been very proactive in their efforts to identify risks to the public from air toxics and in response to this specific situation.
- For the assessment of impacts, EPA Region 10 has loaned air monitoring equipment and provided supplies to ODEQ for collection of air samples to analyze for heavy metals. The EPA has also loaned ODEQ equipment to analyze soil samples and offered access to one of the EPA's science and technical assistance contractors. The EPA air and cleanup staff have offered assistance in the development of air and soil sampling programs. In addition, the EPA risk assessors stand ready to

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<sup>1</sup> Region 10 added experts to our team from Region 7, which has worked extensively with the development of the Wool Fiberglass Rule to determine and address hexavalent chromium emissions in EJ neighborhoods. Also, OAQPS' Measurement Technology Group is providing guidance and information on hexavalent chromium emissions measurement methods. The National Risk Management Laboratory has provided background materials on chromium reactions at high temperatures.



work with the OHA, Multnomah County Health Department, and the Agency for Toxics Substances and Disease Registry to help assess and communicate the public health risks using the limited data currently available and to refine the assessment as more information becomes available on concentrations of metals in the air and soil.

At Headquarters:

- Relevant experts from the Office of Air Quality Planning and Standards (OAQPS) and the Office of Research and Development (ORD) are providing technical support to Region 10 on source testing, health impacts of air toxics levels and other monitoring and impacts issues as they arise.
- The Office of Enforcement and Compliance Assistance (OECA), the Office of General Counsel (OGC) and OAQPS are jointly investigating the applicability of Part 63, Subpart SSSSSS to these and similar facilities nationally.
- OECA and Region 10 have also discussed potential use of authority under Clean Air Act Section 114 to request additional information from facilities nationwide.
- OAQPS is working to improve our characterizations of emissions from art glass manufacturing facilities.
- OAQPS and ORD are collaborating to assess the viability of the original USFS study as a screening methodology for air toxics and review screening modeling by state of Washington. This will help determine whether this modeling can be applied to other art glass manufacturing facilities.
- OAQPS is also considering the feasibility of using the Community Scale Air Toxics Ambient Monitoring funds (FY16) to reimburse the ODEQ for Portland monitoring and conduct new monitoring around other plants.

We will keep you posted on these activities and look forward to receiving additional information from you as requested above. If you or your states have questions, please contact Mike Koerber in OAQPS.

Attachment

Company Name	Street Address	Region	City	State	Zip	Phone	Notes
1 Steuben	One Museum Way	2	Corning	NY	14830	607 937-5371	fabricator?
2 Blenko Glass	9 Bill Blenko Dr.	3	Milton	WV	25541	304 743-9081	
3 Youghiogheny Glass	300 S 1st Street	3	Connellsville	PA	15425	724 628-3000	
4 Wissmach Glass	420 Stephen St.	3	Paden City	WV	26159	304 337-2253	closed but permitted
5 Fenton Glass	700 Elizabeth St	3	Williamstown	WV	26187	304 375-6122	
6 Armstrong Glass	55 Chastain Road NW	4	Kennesaw	GA	30144	770 919-9924	
7 Origin Glass (Elan Technologies)	169 Elan Court	4	Midway	GA	31320	912 880-3526	
8 Parramore Glass	PO BOX 2777	4	Asheville	NC	28802	828 456-4414	fabricator?
9 Franklin glass	222 East Sycamore St	5	Columbus	OH	43206	614 221-2972	
10 Kokomo Glass	1310 S. Market St.	5	Kokomo	IN	46902	765 457-8136	
11 Pacific Art Glass	125 West 157th St	9	Gardena	CA	90248	310 780-4047	
12 Uroboros Glass	2139 N. Kerby Ave. SE	10	Portland	OR	97227	503 284-4900	fabricator?
13 Spectrum Glass	21415 87th Avenue SE	10	Woodinville	WA	98072	425 483-6699	
14 Bullseye glass	3722 SE 21st Ave	10	Portland	OR	97202	503 232-8887	
15 System 96	24105 Snohomish-Woodinville Road	10	Woodinville	WA	98072	425 483-6699	
16 Northstar Glassworks	8228 SE 26th Place	10	Portland	OR	97202	866 684-6986	makes colored borosilicate glass
17 Trautman Art glass		10	Portland	OR			
18 Glass Alchemy		10	Portland	OR			
19 Momka's Glass	19580 23rd Avenue NE	10	Arlington	WA	98223	425 776-3417	